CLEC equipment.[169] Moreover, the construction of such a wall, structure, or buffer zone would lengthen collocation intervals, thus delaying CLEC collocation.

ILECs security concerns can be addressed by less restrictive, available security measures. Besides security badges and cameras, ILECs may also construct partitions, such as lockable equipment cabinets.[170] Lockable cabinets would provide ILECs with the desired protection for their equipment without reducing the space available in the premises for physical collocation.[171] ILECs, however, may not use a perceived need for a partition to delay collocation by a CLEC, or require a CLEC to construct or pay for these types of partitions, thus eliminating any costs savings from utilizing cageless collocation.[172] If ILECs were to allow competitors the remote access to monitor and manage their equipment in the NGDLC remote terminal, it would drastically reduce the need for CLECs to enter the remote terminal.[173] By limiting the need for CLECs to enter the remote terminal, the possibility of inadvertent security breaches would also decrease.[174] Finally, the Commission should recognize that reasonable security measures in an ILEC premises are limited to those that the ILECs impose upon their own employees or for authorized contractors.[175]

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[169] *Advanced Services Order* ¶¶ 47-48.

[170] Joint Declaration ¶ 40; *See also Advanced Services Order* ¶¶ 47-48.

[171] Joint Declaration ¶ 40.

[172] *Advanced Services Order* ¶¶ 47-48.

[173] Joint Declaration ¶¶ 116-118.

[174] Joint Declaration ¶ 40.

[175] *Collocation Order on Reconsideration* ¶ 60; *Advanced Services Order* ¶ 47.

C. Collocation at the Remote Terminal is "Necessary" to Effectuate the Goals of the Act

It is "necessary" for competitors to be able to collocate their equipment at the remote terminal in order to provide competitive advanced services. In the *UNE Remand Order*, the Commission determined that its collocation guidelines apply "at any technically feasible point."[176] In the *2nd NPRM*, the Commission seeks to amend the rule "to make clear our intent to require collocation in either controlled environmental huts or vaults, as well as other remote terminals."[177] In the *Order on Reconsideration*, the Commission stated conclusively that ILEC premises include remote terminals.[178] In light of these determinations, the Commission should conclude that collocation requirements specific to the remote terminal are "directly related to" interconnection and access to unbundled elements and an inability to collocate in such a manner would interfere with a CLEC's ability to compete effectively and efficiently. Accordingly, the Commission should establish rules requiring ILECs to offer several specific collocation options at the remote terminal.

1. CLECs Have the Right to Nondiscriminatory Collocation at Remote Terminals, Including the Placement of DSL Line Cards

CLECs have the same right to collocate their own equipment at the remote terminal as at any other ILEC premises. The Act imposes a duty on ILECs to allow CLECs to interconnect with the network at any technically feasible point,[179] "on rates, terms, and conditions that are just, reasonable and nondiscriminatory, for physical collocation of equipment necessary for

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[176] *UNE Remand Order* ¶ 221.

[177] *2nd NPRM* ¶ 104 n.226.

[178] 47 C.F.R. § 51.5; *Collocation Order on Reconsideration* ¶¶ 42-47.

[179] 47 U.S.C. § 251(c)(2).

interconnection or access to unbundled network elements at the premises of the local exchange carrier."[180] This statutory mandate applies to remote terminal collocation.

The Commission has concluded that ILEC premises "include, to the extent technically feasible, central offices, controlled environmental vaults, controlled environmental huts, cabinets, pedestals, and other remote terminals."[181] The Commission went on to state that the Commission's existing "collocation rules, which [the FCC] recently clarified in the *Advanced Services First Report and Order*, apply to collocation at any technically feasible point, from the largest central office to the most compact [feeder distribution interface]."[182] While the remote terminals are similar to the ILEC central offices, the unique aspects of remote terminals mandates specific collocation regulations.

States are beginning to follow the FCC's lead by recognizing the ability of carriers to collocate at the remote terminals. For instance, Massachusetts, Maryland, New York, Pennsylvania, and Illinois all require ILECs to make collocation available at the remote terminal.[183] In Maryland, the Commission found that Verizon's commitment "to provide CLECs

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[180] 47 U.S.C. § 251(c)(6). The Commission has defined premises as "an incumbent LEC's central offices and serving wire centers; all buildings or similar structures owned, leased, or otherwise controlled by an incumbent LEC that house its network facilities; all structures that house incumbent LEC facilities on public rights-of-way, including but not limited to vaults containing loop concentrators or similar structures; and all land owned, leased, or otherwise controlled by an incumbent LEC that is adjacent to these central offices, wire centers, buildings, and structures." 47 C.F.R. § 51.5; *Collocation Order on Reconsideration* ¶¶ 42-47.

[181] 47 C.F.R. § 51.5; *Collocation Order on Reconsideration* ¶¶ 42-47.

[182] *UNE Remand Order* ¶ 221.

[183] Massachusetts Department of Telecommunications and Energy, Final Order in Phase III, Case 98-57 (MA DTE May 5, and June 15 2000); *In the Matter of the Arbitration of Rhythms Links, Inc. and Covad Communications Company Vs. Bell Atlantic Maryland Inc. Pursuant to Section 252(b)(2) of the Telecommunications Act of 1996,* Case No. 8842, Order No. 76488 (Aug. 21, 2000) ("*Maryland Line Sharing Order*"); *Proceeding on Motion of the Commission to Examine New York Telephone Company's Rate for Unbundled Network Element*, Case 98-C-1357, Press Release (NY PSC Sept. 20, 2000) ("*NY PSC Line Sharing Press Release*"); *Joint Petition of Nextlink Pennsylvania, Inc. et al.*, Docket Nos. P-00991648 *et al.*, Opinion and Order (Pa. Pub. Util. Comm'n Sept. 27, 1999) ("*Pennsylvania Collocation Order*"); at 97; Illinois Line Sharing Order at 32.

the ability to place DSLAM equipment at the remote terminal," including the "plug and play" option, need not wait until the ILEC "offer[ed] retail service based on this technology."[184]

State commissions have also begun to require ILECs to allow CLECs to collocate DSL line cards in the NGDLC chassis. The Massachusetts Department of Telecommunications and Energy has ordered Verizon to propose tariff language on the "plug and play" option. The Illinois Commerce Commission has already determined that Ameritech must allow CLECs to place line cards at remote terminals, as follows:

> Ameritech is required to install plug-in cards (purchased by either Ameritech or Covad/Rhythms) at its remote terminals, at Covad' s and Rhythms' request, thereby allowing the CLECs to provide xDSL service over Project Pronto DLC. . . . To the extent that Ameritech installs plug-in cards for Covad or Rhythms that have been purchased by Ameritech, Covad and Rhythms are required to fully compensate Ameritech for the cost of the plug-in card. . . . However, we require Ameritech to install plug-in cards which support all DSL-based services requested by the CLECs. If Covad's or Rhythms' business plan calls for a particular DSL service that requires a plug-in card that Ameritech does not provide itself, the burden of proof will lie with Ameritech to prove that the plug-in card is incompatible with Project Pronto DLC technology.[185]

Applying the Commission's rules establishing a rebuttable presumption of technical feasibility for all ILECs once one state recognizes a new collocation arrangement,[186] all ILECs should now be presumed to be able to place of DSL line cards in the NGDLC chassis. As the Commission has recognized, this presumption "will encourage all LECs to explore a wide variety of collocation arrangements and to make such arrangements available in a reasonable and timely fashion."[187]

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[184] *Maryland Line Sharing Order* at 14-15.

[185] *Illinois Line Sharing Order* at 32.

[186] 47 C.F.R. § 51.321(c); *see Advanced Services Order* ¶ 8 ("A collocation method used by one incumbent LEC or mandated by a state commission is presumptively technically feasible for any other incumbent LEC.").

[187] *Advanced Services Order* ¶ 45.

Additionally, the Commission has found that:

> When an incumbent has deployed DLC systems, requesting carriers must install DSLAMs at the remote terminal instead of at the central office in order to provide advanced services. We agree that, if a requesting carrier is unable to install its DSLAM at the remote terminal or obtain spare copper loops necessary to offer the same level of quality for advanced services, the incumbent LEC can effectively deny competitors entry into the packet switching market.[188]

This language is consistent with Rhythms' position that CLECs need access to the loop at the remote terminal under whatever feasible options are available, particularly including placing DLC line cards. To expedite the process of obtaining this type of collocation from the ILECs—now required to provide installation of DSL line cards—the Commission should recognize this ILEC obligation as a national collocation requirement.

2. ILECs Should Provide a Menu of Options for Collocating at Remote Terminals

Technically, there are numerous options for collocating CLEC equipment at the remote terminal. These options include collocating a traditional DSLAM, collocating a next-generation, "pizza-box" DSLAM, interconnecting an adjacent collocation arrangement and placing a DSL line card in the NGDLC chassis.[189] This final "line card" option has the greatest potential to maximize collocation of DSL equipment in the remote terminal.[190] However, where NGDLC has not been deployed, the only way to reach customers served by older DLC equipment is through other collocation options.[191] Therefore, to foster facilities-based competition in the advanced services market, ILECs should make each of these options for remote terminal collocation available. Like the Commission's cageless collocation rules, remote terminal

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[188] *UNE Remand Order* ¶ 313.

[189] Joint Declaration ¶¶ 64-81.

[190] Joint Declaration ¶¶ 88, 112.

[191] Joint Declaration ¶¶ 64-81.

collocation rules satisfy the *Chevron* burden because they will remedy the "inefficient use of limited space in a LEC premises" by ensuring that LECs "do not place unreasonable minimum space requirements" and service to "reduce[ ] the cost of collocation. . . and the likelihood of premature space exhaustion."[192]

To remedy space exhaustion in *central offices*, the Commission found that alternative collocation arrangements foster competition, because they "optimize the space available at incumbent LEC premises, thereby allowing more competitive LECs to collocate equipment and provide service,]" [193] "encourage the deployment of advanced services to less densely populated areas by reducing the cost of collocation for competitive LECs,"[194] "increase predictability and certainty,"[195] and solve problems of inefficient use of space and costs and delays caused by existing arrangements.[196] For all these reasons, it is appropriate for the Commission to now require ILECs to make all of the feasible options available at remote terminal.

A menu of collocation options at remote terminal allows the competitor to select the most efficient option consistent with its business interests. The remote terminal is often conceived as a compact version of a central office located in the ILECs' outside plant as part of the NGDLC

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[192] 205 F.3d at 425.

[193] *Advanced Services Order* ¶ 39.

[194] *Advanced Services Order* ¶ 39.

[195] *Advanced Services Order* ¶ 39, n. 91.

[196] *Advanced Services Order* ¶ 40.

loop network. Space exhaust problems clearly exist in remote terminals. Often, remote terminals can not accommodate competitors equipment.[197]

Rhythms has also encountered ILEC unwillingness to acknowledge the technically feasible options available for competitors to collocate at remote terminals.[198] For example, Verizon contends that access to remote terminals for interconnection purposes is not technically feasible due to concerns about security and reliability.[199] Rhythms has also specifically requested the option to place DSL line cards in the remote terminals to no avail.[200] In the face of these and other ILEC refusals, to permit collocation, interconnection or access to UNEs at the remote terminal, Commission action is necessary to ensure each option for remote terminal collocation is made available to competitors on just, reasonable and nondiscriminatory terms and conditions. In this way, the Commission can ensure that the ILEC premises are being opened to collocation to enable provision of DSL services in the NGDLC network architecture.

a. ILECs Must Permit CLECs to Collocate DSLAM Equipment in the Remote Terminals

First, competitors must have the option to collocate traditional DSLAM and splitter equipment at the remote terminal where space permits.[201] Nonetheless, it is unrealistic to assume

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[197] Letter from Paul K. Mancini, Vice President & Assistant General Counsel, SBC Communications, Inc., to Lawrence E. Strickling, Chief, Common Carrier Bureau, FCC (Feb. 15, 2000) ("*SBC February 15 Letter*") at 2; Reply Comments of SBC Communications Inc. in Support of a Determination that SBC Incumbent LECs may Own Combination Plugs/Cards and Optical Concentration Devices, CC Docket No. 98-141 (Mar. 10, 2000) at 15; Joint Comments of Bell Atlantic and GTE on Ownership of Plugs/Cards and OCDs from SBC's Request for Interpretation, Waiver, or Modification of the SBC/Ameritech Merger Conditions, CC Docket No. 98-141 (Mar. 3, 2000) at 2-3.

[198] Joint Declaration ¶ 119.

[199] *In re Petition of MCI Telecommunications Corporation for Arbitration of Unresolved Issues With Bell Atlantic-Washington D.C., Inc. Pursuant to Section 252 of the Telecommunications Act of 1996,* Bell Atlantic – Washington, D.C., Inc.'s Response to Commission Order No. 11569 at 2, n. 6 (January 18, 2000).

[200] Joint Declaration ¶ 119.

[201] 47 C.F.R. Part 51.5; *Collocation Order on Reconsideration* ¶¶ 42-47; *UNE Remand Order* ¶ 221.

that CLECs could obtain collocation of traditional DSL equipment in the remote terminal on a regular enough basis to afford them the ability to compete effectively and efficiently. There will either not be enough space in the remote terminal or it will be economically infeasible.[202] Traditional DSL equipment normally occupies an entire shelf on a rack in a central office.[203] However, most remote terminals cannot house the CLECs' collocation equipment, much less have an entire shelf for the CLECs' traditional DSLAM.[204] Central office DSLAMs are also expensive equipment capable of serving several hundred customers.[205] Based on the existing and projected DSL market share held by each DSL provider, it would be overly optimistic for a competitive provider to foresee serving this many customers from most remote terminals.[206] In all likelihood, therefore competitors will not be able to justify deploying traditional DSL equipment in each of the vast number of remote terminals needed to effectively compete with the ILECs.[207] Nevertheless, as the market evolves and expands and as DSL equipment manufacturers move to address the space limitations posed by remote terminal collocation, it may become more feasible for competitors to collocate traditional DSL equipment at the remote terminals. Thus, the option should be preserved.

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[202] Joint Declaration ¶ 64.

[203] Joint Declaration ¶ 64.

[204] *SBC February 15 Letter* at 2.; Joint Comments of Bell Atlantic and GTE on Ownership of Plugs/Cards and OCDs from SBC's Request for Interpretation, Waiver, or Modification of the SBC/Ameritech Merger Conditions, CC Docket No. 98-141 (March 3, 2000)("BA-GTE Comments") at 2-3.

[205] Joint Declaration ¶ 64.

[206] Joint Declaration ¶ 64.

[207] Joint Declaration ¶ 64.

b. CLECs Should Also Be Able to Collocate Their "Pizza-Box" DSLAMs

Second, competitors should also have the option to collocate the so-called "pizza-box" DSLAM. Manufacturers have just recently unveiled a new, smaller type of DSLAM, denominated in the industry as "pizza box" DSLAMs. Though more compact, the "pizza-box" DSLAM also serves fewer customers, generally between 48-96 end users. These characteristics make the "pizza-box" DSLAM more appealing to meet certain business needs, collocating in the remote terminal is not one of them. Similar to the traditional DSLAMs, there will usually not be enough space in the remote terminal for even "pizza-box" DSLAM, and even if there was this option would rarely be cost-efficient.[208] Yet, remote terminal space exhaustion frequently precludes collocation of even the "pizza-box" DSLAM. Even so, competitors should have the option of such deployment where the situation permits and it fits their business needs.

c. Another Avenue for Addressing NGDLC in Remote Terminals is Through Adjacent Arrangements

The Commission has acknowledged that its rules do not "preclude requesting carriers from constructing their own facilities adjacent to the incumbent's equipment."[209] While this option provides competitors with theoretical avenues for interconnection and access to UNEs, in reality it is not a viable option as the sole method for such access.[210] Furthermore, the Commission should conclude that the option for CLECs to build adjacent facilities does not fully discharge an ILECs Section 251(c)(6) obligation to permit collocation on the ILEC premises, because CLECs, not ILECs, are housing the necessary equipment. Rather adjacent collocation as proposed by ILECs amounts to little more than interconnection between the carriers. CLECs

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[208] Joint Declaration ¶ 69.

[209] *UNE Remand Order* ¶ 221.

build small "RTs", to house their own equipment which they then interconnect with the ILEC at the remote terminal. Consequently, in Rhythms' view this is precisely the kind of forced network overbuild that the Act sought to forestall in requiring collocation in the first place. Nevertheless, ILECs should continue to be obligated to interconnect with such adjacent collocation arrangements.

To date, ILECs have consistently referenced adjacent collocation as the sole means for remedying space exhaustion at the remote terminals.[211] ILECs have not wavered in their policy to provision adjacent collocation arrangements only on a case-by-case basis.[212] This means that the ILECs will determine the length and cost of provisioning separately for each arrangement. In Rhythms experience individual case basis ("ICB") arrangements tend to have extremely long provisioning windows and are prohibitively expensive (no doubt in part due to the lack of case-by-case regulatory pricing oversight).[213]

Limited to only interconnection through adjacent collocation arrangements, CLECs face several burdensome, if not prohibitive, obstacles because they do not enjoy many of the benefits that inured to ILECs under a monopoly regime. For instance, because the adjacent structure is not an ILEC premises, CLECs are likely to experience many roadblocks, including zoning

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[210] Joint Declaration ¶¶ 64-66.

[211] BellSouth RT Collocation Amendment § 3.2 (see Attachment 1); SBC Draft Overview of Remote Terminal Collocation (Aug. 24, 2000) at 2 (see Attachment 2).

[212] Joint Declaration ¶ 70. Additionally, ILECs are obligated in provisioning adjacent arrangements to "provide power and physical collocation services and facilities, subject to the same nondiscrimination requirements as applicable to any other physical collocation arrangement." 47 C.F.R. 51.323(k)(3); *Advanced Services Order* ¶ 44.

[213] Joint Declaration ¶ 70.

restrictions and ILECs' restrictive interpretations of the term "premises".[214] When dealing with private land owners and localities to construct their own adjacent network arrangements, CLECs do not have the historical fiat that the ILEC monopolies had at the time the ILECs established the their premises. Thus, CLECs have experienced significant delays in obtaining the necessary permits.[215] Additionally, CLECs would not only need to purchase and place a remote terminal structure with the cabling to the ILEC remote terminal and the power source, CLECs would also have to incur the cost of collocating a traditional DSLAM at every ILEC remote terminal.

Collectively, these reasons illustrate why adjacent collocation cannot be the only option for CLECs, as ILECs increasingly deploy NGDLC in remote terminals. The Commission, therefore, should require ILECs to interconnect with adjacent collocations as only one of several options for access to UNEs at the remote terminal.

d. Effectively Placing DSL Line Cards in the Remote Terminal May Be the Only Option For DSL Providers in a NGDLC Environment

Finally, it is "necessary" for competitors to have the option of placing line cards at the remote terminals. As noted in II.B. line cards are equipment necessary for interconnection and access to UNEs. The NGDLC network architecture requires the DSLAM functionality to be located in the remote terminal, as opposed to the central office. Manufacturers now sell DSL line cards that provide the DSLAM functionality in the NGDLC network.[216]

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[214] Joint Declaration ¶¶ 68-76. The rule defines "premises" as "an incumbent LEC's central offices and serving wire centers, as well as all buildings or similar structures owned or leased by an incumbent LEC that house its network facilities, and all structures that house incumbent LEC facilities on public rights-of-way, including but not limited to vaults containing loop concentrators or similar structures." 47 C.F.R. § 51.5.

[215] Joint Declaration ¶ 69.

[216] Joint Declaration ¶¶ 89, 111.

In contrast to other collocation options at the remote terminal, a line card can be provisioned more quickly, in minimal space and at a much lower cost.[217] The seconds it takes to slide a card into the DLC chassis contrasts sharply with the delay involved in obtaining permits and getting the facilities required for interconnection through an adjacent arrangement, the only option offered by the ILECs at this time.[218] Moreover, line cards allow DSL providers to more efficiently utilize space and transmission facilities.[219] In fact, DSL providers will soon have the choice of purchasing line cards that serve anywhere from two to twenty-four end users allowing each carrier to pick the card most suitable for its needs.[220] And as its needs change, a carrier can "trade up" to the next capacity card.[221] As a result, CLECs will therefore purchase only the equipment and amount of space necessary to provide DSL service to short-term customer demand at the remote terminal.[222] Also, because the equipment is significantly smaller, it requires much less collocation space, which in turn should result in much less expense.[223] As a result, data CLECs will significantly reduce the cost of entering a new area.

Permitting collocation of line cards also ensures nondiscriminatory treatment as required in Section 251(c)(6). At present, the incumbents are aggressively working feverishly to be able to use line cards within the remote terminal for their own use.[224] Simultaneously, ILECs are

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[217] Joint Declaration ¶¶ 74, 88, 112.

[218] Joint Declaration ¶¶ 64-71.

[219] Joint Declaration ¶ 115.

[220] Joint Declaration ¶ 115.

[221] Joint Declaration ¶ 115.

[222] Joint Declaration ¶ 115

[223] Joint Declaration ¶ 74.

[224] Joint Declaration ¶¶ 83-87.

refusing to permit CLEC collocation of DSLAM cards in the NGDLC remote terminal.[225] Such refusals are not only discriminatory as explained in II.B., but also stifle the benefits of competition the Act expressly sought to promote.

Collocation of line cards, thus, provides CLECs with a significant opportunity for obtaining collocation at the remote terminal at reasonable costs and intervals, and with the most flexibility for defining their own advanced service parameters.[226] Other forms of remote terminal collocation may be much less widely available. Therefore, competitors must have the option to place line cards in the NGDLC chassis in the remote terminal to foster deployment of innovative advanced services through facilities-based competition.

3. The Rules for Physical Collocation Need Modifying to Accommodate the Unique Aspects of Collocation at the Remote Terminal

Facilities-based competition in the fiber-fed network architectures now being widely deployed by ILECs can only be accomplished through supplementing and modifying existing collocation requirements to address remote terminals. Some new rules are necessary to effectuate collocation of line cards, while others, apply to all types of remote terminal collocation. Modifications to regulations necessary for remote terminal collocation include requirements governing physical connectivity, commingling of equipment, reasonable security measures, power and cooling, space availability reporting, and space reservation policies. Through the implementation of these rules, the Commission's collocation regulations will promote remote terminal collocation that is just, reasonable and nondiscriminatory.

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[225] Joint Declaration ¶ 119.

[226] Joint Declaration ¶¶ 108-110, 112-118.

a. Any Requirements for the Remote Terminals Should Promote Physical Connectivity

Collocation requirements should promote the compatibility and interoperability of line cards placed in the DLC network architecture necessary to promote physical connectivity.[227] The ILEC should provide the information necessary for competitors to purchase line cards compatible with the NGDLC chassis that the ILEC has chosen to provision in its remote terminals.[228] Moreover, ILECs must deploy interoperable equipment where available. Manufacturers can produce equipment that allows for interoperability, as long as the market exists for such equipment.[229] ILECs also should describe any limitations that might arise in each type of remote terminal depending on the NGDLC chassis deployed. Additionally, ILECs are fully aware of their obligation to continue to make the loop network available to competitors, even upon upgrades.[230] With the deployment of NGDLC equipment into the loop network, the network cannot be truly accessible and open to competitors, unless the NGDLC chassis is capable of supporting compatible and interoperable equipment.[231] The ILECs should, thus, make any possible modifications to the existing NGDLC equipment necessary to promote compatibility and interoperability. Finally, the FCC should prohibit the ILECs from designing and deploying remote terminals that are designed to, or in effect, make compatibility more difficult.

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[227] Joint Declaration ¶¶ 114-118.

[228] Joint Declaration ¶¶ 81, 114.

[229] Joint Declaration ¶ 114.

[230] 47 U.S.C. § 256. *See also* IV.A. and B.

[231] Joint Declaration ¶ 114.

b. There Must be a Rebuttable Presumption that Remote Terminal Collocation Does Not Require Additional Capacity for Cooling or Power

Rhythms requests that the Commission institute a rebuttable presumption that remote terminals do not require additional power or cooling capabilities in order to allow for CLEC collocation. CLEC collocation of line cards or traditional DSLAMs in the remote terminal imposes no different heat or power demands than does the ILEC placement of the same equipment.[232] The remote terminals were built to have sufficient power and cooling mechanisms to support the terminal at full capacity.[233] Up to capacity limits, power and cooling requirements do not differ with differences in the title. That is, the inclusion of CLEC equipment in the remote terminal, instead of all ILEC equipment, should not impact the use of power or the dissipation of heat.[234]

Indeed, CLEC equipment may actually emit less heat than ILEC remote terminal equipment. ADSL technology dissipates more heat than other DSL technologies.[235] ILECs plan to provision only ADSL service through the NGDLC remote terminal.[236] However, since CLECs routinely provision xDSL technologies other than ADSL, out of the remote terminal the total amount of heat dissipated in the remote terminal will be less.[237] Thus, a rebuttable presumption to this effect is appropriate and reasonable.

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[232] Joint Declaration ¶¶ 56, 57

[233] Joint Declaration ¶ 57.

[234] Joint Declaration ¶ 57.

[235] Joint Declaration ¶ 57.

[236] Joint Declaration ¶ 57.

[237] Joint Declaration ¶ 57.

c. The Information on Space Availability is Different in the Remote Terminal

In the *Advanced Services Order*, the Commission determined that ILECs must provide CLECs with tours of their premises, along with availability reports and on-line lists of exhausted locations.[238] In particular, the Commission concluded that "[f]or network planning purposes, new entrants need to know what incumbent LEC offices are available for collocation," especially "when such information is readily available to the incumbent LEC that occupies that office."[239] This rule applies to information about remote terminals being deployed in the NGDLC loop network.

Information about remote terminals should be more readily available than the corresponding information for central offices, since most ILECs are in the process of deploying remote terminal in their NGDLC loop networks.[240] This additional information about the remote terminals that is available to the ILECs must also be made available to the CLECs. When a loop is served by an NGDLC remote terminal, Rhythms has explained that competitors have several options for deploying advanced services to the end user.[241] To make an informed decision about which option to choose, Rhythms needs the following information about each remote terminal deployed in the NGDLC loop network:

(1) number and types of DLCs deployed not just specific remote terminal location specified by the CLEC;

(2) names and CLLI of all DLCs associated with each CO;

(3) number of DLC equipped lines per CO;

(4) % of total lines served by DLCs within each wire center;

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[238] *Advanced Services Order* ¶¶ 57-58.

[239] *Advanced Services Order* ¶ 59.

[240] Joint Declaration ¶¶ 58-61.

[241] Joint Declaration ¶¶ 64-74.

(5) identify the number of copper fed vs. fiber fed DLCs;

(6) identify the number of lines served in each category (*i.e.* copper fed, fiber fed);

(7) DLC capacity (number of lines capable and number of lines equipped) for each DLC served from the COs;

(8) DLC manufacturer, model number for each DLC served from the COs;

(9) DLC configuration/type (*i.e.,* DLC, NGDLC, fiber fed or copper fed) for each DLC served from the COs;

(10) capacity of distribution facilities (*e.g.* wire gauge, connector blocks, protection devices, cabinet access and egress, etc.) between the DLC and customer premise for each DLC served from the COs;

(11) availability and type of transport facilities (*e.g.* fiber, copper, DSx, OCx) available between the DLC and CO

(12) type and size of structure housing the DLC (*e.g.,* cabinet, hut, CEV, building);

(13) any construction restraints regarding placement of power (depth of placement, conduit vs. no conduit, wire gauging requirements, service amperage requirements, etc.);

(14) latitude/longitude and address or other geographic location information for DLCs;

(15) distance from the CO to the DLC;

(16) distance from the DLC to Feeder Distribution Interface (FDI);

(17) longest loop distance served by the DLC (loop length between the DLC site and the customer premise);

(18) availability of space inside the DLC cabinet/structure;

(19) availability of existing right-of-way adjacent to DLC cabinet/structure or FDI;

(20) any dimensions of the right-of-way/easement;

(21) any zoning requirements (*i.e.,* buffer zone);

(22) any restrictive covenants if the DLC is located in or near a sub-division;

(23) whether CLEC can gain access to that particular right-of-way or easement without obtaining franchise rights;

(24) whether the DLC is located in a flood plain or are there other environmental circumstances that should be given consideration? If so, how is ILEC addressing those environmental concerns;

(25) whether vehicular access is available to the DLC;

(26) the address and phone numbers of the end users served by the FDIs served through the remote terminal; and

(27) availability of adjacent alternatives and minimum space requirements, if any.

Rhythms, therefore, requests that the Commission not only recognize that ILECs have a continuing obligation to provide information about space availability in their premises, but also direct ILECs to provide the forgoing information for remote terminals

d. Limited Space in Remote Terminals Make Nondiscriminatory Space Reservation Policies More Important

As previously discussed in III.B., the Commission should adopt a national space reservation policy when states do not set their own standards, especially for situations where a premises is space exhausted or nearing exhaust. Because many of the "shrink-wrapped" remote terminals being deployed are already near exhaust, the Commission should clarify that ILECs cannot avoid their regulatory and statutory obligations to allow facilities-based competition by intentionally deploying network facilities incapable of supporting CLEC collocation. While the national space reservation policy for remote terminals should be the same for ILECs as it is for CLECs, it is also logical that with the limited amount of space in the remote terminals that the standard be for a shorter period of time than that applied to a central office.

The Commission should explain that the general space reservation policies applicable to remote terminals require the ILECs to take proactive measure to make all remote terminals capable of housing CLEC equipment. ILECs can adhere to this requirement either through removal of equipment, replacement of equipment with newer, smaller, state-of-the-art

equipment, deploying or replacing deployed remote terminals with larger or expandable remote terminals.[242]

D. Line Sharing Policies are "Necessary" to Effectuate the Goals of the Act

In the *Line Sharing Order*, the Commission determined that incumbent LECs have an obligation to "unbundle the high frequency portion of the loop to permit competitive LECs to provide xDSL-based services by sharing lines with the incumbent's voiceband services."[243] Rhythms urges the Commission to clarify its collocation requirements to ensure that CLECs can efficiently and effectively collocate the equipment necessary to implement line sharing and to "ensur[e] that residential and small business consumers receive the benefits of competition and innovation promised in the Act."[244]

Implementation of line sharing changes how some carriers choose to arrange their collocation equipment.[245] First, the equipment "necessary" for line sharing depends on whether the CLEC owns the splitter or uses an ILEC splitter. If a carrier chooses to line share with other CLECs, a cross-connect between the carriers collocation space will be "necessary." Line sharing in a central office may also increase a carrier's need to collocate in contiguous space.[246] CLECs must also have the ability to line share even when the loop is served by NGDLC. As explained in II.B., CLECs must be able to place line cards in the remote terminals. This is even more true with a line shared loop.[247]

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[242] Joint Declaration ¶ 76.

[243] *Line Sharing Order* ¶ 13.

[244] *Line Sharing Order* ¶ 13.

[245] Joint Declaration ¶¶ 41, 49-51, 88-89.

[246] Joint Declaration ¶ 51.

[247] Joint Declaration ¶ 71.

Rhythms places splitters in its collocation arrangements in order to access the high frequency portion of the loop.[248] Following the *Line Sharing Order*, however, Rhythms also needed to place its splitters in its existing collocation arrangement. Some ILECs, such as Verizon, have taken the unreasonable position that additional splitters constitute a collocation "augment," even though Rhythms performs the work to place these splitters in its own collocations.[249] These ILECs also unreasonably refuse to permit CLECs to use existing cabling for the new splitters[250] and further require CLECs to wait the entire collocation provisioning intervals, sometimes as long as six (6) month, to implement the splitter additions.[251] Without a splitter, Rhythms cannot access the high frequency portion of the loop.[252] Thus, the delay involved in the ILEC "mandatory waiting period" policies precludes Rhythms from offering service to end users. Therefore, the Commission should preclude incumbents from applying unreasonably long intervals for equipment additions to an existing collocation space.

The Commission should set rules to ensure that CLECs are not denied collocation access for line sharing on terms and conditions that are just, reasonable and nondiscriminatory.

E. National Maximum Collocation Provisioning Intervals are "Necessary" to Effectuate the Goals of the Act

In the *Collocation Order on Reconsideration*, the Commission correctly set a national maximum collocation provision interval of 90 days for physical collocation to govern where a

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[248] Joint Declaration ¶ 49.

[249] Joint Declaration ¶ 49-51; *Maryland Line Sharing Order* at 2.

[250] This refusal is particularly unjust and unreasonable because CLECs are often required to provision (and pay for) cabling to a collocation arrangement in [100 pair] multiples, which often is not utilized for many months. Joint Declaration ¶ 51. Thus, requiring CLECs to obtain additional cabling in [100 pair] increments leads to an even higher percentage of unused cabling. Joint Declaration ¶ 51. ILECs have refused to provide cable on a "pair-at-a-time" basis. Joint Declaration ¶ 51.

[251] Joint Declaration ¶¶ 42-45.

[252] Joint Declaration ¶ 71.

state has not set a standard.[253] Although the Commission declined to adopt provisioning intervals for "cageless, shared, and adjacent collocation, to suggest time frames for their provisioning," but "retained authority to adopt specific time frames in the future."[254] In the *Second NPRM*, the Commission seeks comment on the appropriate provisioning intervals for these types of collocation.[255] The Commission should also clarify that its maximum guidelines are a ceiling that may be shortened by the state commissions.

States have adopted a range of collocation intervals that recognize that non-caged forms of collocation warrant a shorter collocation interval. In Texas, the Commission distinguished the collocation intervals on the basis of caged and cageless, providing 90 days for active collocation space, and 55 days for cageless collocation when the CLEC installs the rack/bay.[256] The Florida Commission also provides that physical collocation must be provisioned within 90 calendar days, while virtual collocation must occur within 60 calendar days of the firm order confirmation.[257] While some states consider the analysis of different preparation times required by the different types of collocation, most states have yet to set intervals that reflect the relative preparation time for the particular collocation arrangement or task.

Still other states retain collocation intervals in place that exceed or predate the Commissions maximum intervals. In New York, the Commission finds reasonable a 76 business day (105 calendar day) interval for physical collocation, and a 105 business day (150 calendar

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[253] *Collocation Order on Reconsideration* ¶ 17.

[254] *Collocation Order on Reconsideration* ¶ 14.

[255] *2nd NPRM* ¶¶ 114-115.

[256] Texas Public Utility Commission, *Investigation of Southwestern Bell Telephone Company's Entry into the Texas InterLATA Telecommunications Market, Project No. 16251*, Order No. 50 Approving Proposed Interconnection Agreement As Amended, at 140-68 (Texas PUC Aug. 16, 1999).

[257] Florida Public Service Commission's Order No. PSC-00-0941-FOF-TP, at 28 (FL PSC May 11, 2000).

days) interval for virtual collocation that includes the period of time to test the line before actual start-up of the virtual arrangement.[258] Finally, the Massachusetts Commission concluded that a 75 business day interval "for all forms of collocation exclusive of adjacent, is appropriate."[259]

As the Commission has previously determined, uniform national collocation provisioning standards would allow the states the autonomy to make their own determinations, while precluding ILEC discrimination.[260] The Commission correctly "encourages state commissions to ensure that incumbent LECs are given specific time intervals within which to respond to collocation requests."[261] The Commission can and should set maximum provisioning intervals for all new varieties of collocation.

Accordingly, Rhythms proposes the following maximum intervals:

Caged Physical Collocation (including shared):	60 calendar days from receipt of application.
Cageless Collocation:	30 calendar days from receipt of application.
Adjacent Collocation:	30 calendar days from receipt of application.
Virtual Collocation:	30 calendar days from receipt of application.
Remote Terminal Collocation:	30 calendar days from receipt of application.
ILEC Modifications Made:	45 calendar days from receipt of application.
CLEC Modification Made:	0 days.

Rhythms' proposed intervals account for the actual reasonable time to provision different collocation scenarios.[262] Thus, for instance, a cageless collocation arrangement naturally takes less time than a caged arrangement because there is no need to construct a cage.[263] Indeed in

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[258] *New York Order* at 10.

[259] Massachusetts Department of Telecommunications and Energy, Final Order in Phase I, Case 98-57, at 60 (MA DTE March 24, 2000).

[260] *Advanced Services Order* ¶¶ 8, 23-24.

[261] *Collocation Order on Reconsideration* ¶ 14.

[262] Joint Declaration ¶ 43.

[263] Joint Declaration ¶ 43.

those jurisdictions that have adopted a shorter interval for cageless collocation, the ILEC generally meet the deadline.[264] The same reasoning applies to virtual collocation.[265] For adjacent collocation, there is typically much less work required of the ILEC, and therefore a shorter collocation provisioning interval should be more sufficient. For instance, in adjacent arrangements the ILECs do not have to condition or prepare space inside the central office for this type of collocation.[266] Indeed, cageless, adjacent and virtual collocation all have added efficiencies and reduce ILEC construction and obligations supporting the shorter proposed provisioning intervals.

When Rhythms is merely modifying its existing collocation arrangement, there is much less actual construction work than for an original collocation arrangement.[267] Rhythms proposes that minor collocation modifications completed by the CLECs require no provisioning interval because they require no work on the part of the incumbent.[268] If the requested change does not exceed the original space and power estimates, there should be no obligation to seek ILEC permission or pay additional fees or endure a LEC-dictated "interval".[269] The interval for incumbent modifications to existing arrangements should be much shorter than the intervals for initial placement of collocation equipment to reflect significant work already completed.[270] The national maximum collocation intervals appropriately reflect the amount of effort expended—time, money, and resources—for the type of actual collocation requested.

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[264] Joint Declaration ¶ 42.

[265] Joint Declaration ¶ 43.

[266] Joint Declaration ¶ 43.

[267] Joint Declaration ¶ 45.

[268] Joint Declaration ¶ 45.

[269] Joint Declaration ¶ 44.

[270] Joint Declaration ¶ 45.

The Commission should also develop additional rules aimed at stemming incumbent abuse of established collocation intervals. ILECs often wait until the provisioning interval is reached before turning over the space to the CLEC.[271] Thus, the Commission should emphasize that ILEC must turn over space as quickly as possible and as soon as provisioning is complete.

IV. THE COMMISSION MUST ACT QUICKLY AND DECISIVELY TO SAFEGUARD COMPETITION WITH THE EVOLUTION OF THE NETWORK ARCHITECTURE —SPECIFICALLY THE WIDESPREAD AND ACCELERATING DEPLOYMENT OF NGDLC

The 1996 Act was designed to open local markets to competition by requiring the monopoly incumbent LECs open their public telecommunications networks to competitors to promote facilities-based local competition in telecommunications advanced services markets. In turn, the Commission, states, competitors and courts have all has expended substantial resources to implement the language of the 1996 Act through comprehensive regulations and policies designed to ensure that facilities-based competition develops and continues to evolve and flourish. In this new landscape, legislators, regulators and carriers have all labored to embrace the widely-recognized public and consumer benefits of facilities-based competition.

In stark contrast to these Herculean efforts to open these markets, the ILECs have resisted change, continuing pre-Act practices and strategically cooperating to use the courts, local legislatures, bargaining power and influence to prolong the realization of true competition. Ignoring the Congressional directives and refusing to abide by the letter and spirit of Commission policies and regulations, ILECs have slowed or forestalled competition and denied Americans the full benefit of robust competition in local and advanced services markets.

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[271] Joint Declaration ¶ 43.

Not only have ILECs refused to fully implement their obligations, they are now attempting to permanently evade them. The latest ILEC gambit to thwart advanced services competition seems to presume that they may simply ignore the statutory and regulatory mandates by designing their networks to foreclose unbundling, apparently believing, without any textual support, that the Act and implementing regulations apply only to the network of yesterday, but not the network of tomorrow.

Properly implemented, the evolution of the loop network can benefit consumers and carriers, through rapid deployment of state-of-the-art technology that holds the promise of new, innovative service offerings and improvements. To assure that the networks evolve to the benefit of the public, in a way that is consistent with the statutory and regulatory policy of promoting competition, the Commission must take this opportunity expand and reiterate ILEC obligations as they relate to changes in network architecture. Indeed, this was the very task delegated to the Commission under Sections 251 and 256.

The deployment of NGDLC —next generation digital loop carrier —equipment in no way changes the ILECs' obligation to unbundle their networks. In the 1996 Act, Congress obligated ILECs to allow competitors to interconnect and access certain network elements. The incumbents cannot now evade the Act's obligations, even when they upgrade their networks.

This docket properly raises several examples of the need for regulatory oversight of ILEC network architecture changes. For example, due to emerging technology much of the equipment that carriers use to assemble their networks is changing—equipment is becoming more compact and multi-functional. As explained previously, the rules governing collocation must adapt to allow the additional types of equipment that CLECs must collocate at the ILEC premises.